

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A telescopic shaft ~~for a vehicle steering, assembled in a steering shaft of a vehicle and constructed by fitting a male shaft and a female shaft to each other so as to be unable to rotate but to be~~ slidablecapable of transmitting torque therebetween and moving axially relative to each other, said telescopic shaft comprising:

a first torque transferring member interposed via an elastic member between ~~one line~~ a pair of axis-directional grooves ~~and one line of axis-directional groove formed~~ respectively on an outer peripheral surface of said male shaft and ~~on an~~ inner peripheral surface of said female shaft; and

~~a second torque transferring member interposed between another line of axis-directional groove and another line of axis-directional groove formed respectively on the outer peripheral surface of said male shaft and on the inner peripheral surface of said female shaft,~~

said elastic member including:

a transferring_member-~~sides~~ided contact portion
abutting on said first torque transferring member;

a ~~groove-sided-shaft-side~~ contact portion spaced away
at an ~~a~~ predetermined interval ~~substantially in a peripheral~~
~~direction from~~ said transferring_member-~~side~~ sided contact
portion and abutting on a ~~groove surface of the axis-~~
~~directional groove of~~ said male shaft or said female shaft;
and

a biasing portion elastically biasing said
transferring_member-~~side~~-sided contact portion and said
~~groove-sided-shaft-side~~ contact portion ~~in such a direction~~
~~as to separate away~~ from each other,

wherein a rigidity of said transferring_member-~~side~~
~~sided~~-contact portion is higher than that of said shaft-side
~~differentiated from a rigidity of said groove-sided contact~~
portion or of said biasing portion.

2. (Currently Amended) A telescopic shaft ~~for a~~
~~vehiele steering according to claim 19,~~ wherein said first
torque transferring member is a rolling member rolling when
~~both of~~ said male shaft and said female shaft make relative
axial ~~movements in the axis direction,~~ and

said second torque transferring member is a slide member sliding when ~~both of said male shaft and said female shaft make the relative axial movements in the axis-~~ direction.

3. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 1, wherein said biasing portion of said elastic member takes a bent shape bent between said transferring-member-side ~~sided~~ contact portion and said ~~groove surface-sided~~ shaft-side contact portion.

4. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 1, wherein said elastic member is constructed of an integral molding product made from thin plate spring steel.

5. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 1, wherein a surface hardness of said transferring-member-side ~~sided~~ contact portion is set higher than a surface hardness of a portion extending from said ~~groove surface-sided~~ shaft-side contact portion to said biasing portion.

6. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 1, wherein said biasing portion is formed with holes for reducing a biasing force.

7. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 1, wherein a plate thickness of said transferring_member_side-sided contact portion is set thicker than a plate thickness of a portion extending from said ~~groove surface sided~~ shaft-side contact portion to said biasing portion.

8. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 1, wherein said transferring_member_side-sided contact portion ~~is~~ has a contact surface formed substantially in a circular arch cross-sectional shape.

9. (Currently Amended) A telescopic shaft for a vehicle steering, comprising:

a male shaft formed with first and second axis-directional grooves extending in an axis-direction on an outer peripheral surface at an interval of a predetermined angle;

a female shaft disposed coaxially with said male shaft, formed with third and fourth axis-directional grooves extending in the axis-direction on an inner peripheral surface in ~~a way that corresponds to~~ correspondence with said first and second axis-directional grooves, and fitted onto said male shaft;

a first torque transferring member interposed between said first axis-directional groove of said male shaft and said third axis-directional groove of said female shaft;

an elastic member interposed between said first torque transferring member and said first axis-directional groove of said male shaft, and extending in the axis-direction; and

a second torque transferring member interposed between said second axis-directional groove of said male shaft and said fourth axis-directional groove of said female shaft;

and

said telescopic shaft being assembled in a steering shaft of a vehicle and constructed by fitting said male shaft and said female shaft to each other so as to be ~~unable to relatively rotate but to be slidable~~ capable of transmitting torque therebetween and moving axially relative to each other,

wherein said elastic member is integrally formed with a first contact portion at which the elastic member is in

contact with said first torque transferring member, a second contact portion at which said elastic member is in contact with said groove surface of the male shaft, and a biasing portion ~~holding elastically said members which connects said first and second contact portions and elastically holds said first and second contact portions to be spaced apart from each other so as to apply a preload via said in the preloaded and contacted state with the first and the second contacting portions, being spaced away from each other, and~~ the preload caused by said biasing member is so set not to exceed a tolerance value of a surface pressure at said ~~second~~ first contact portion against said first torque transferring member.

10. (Currently Amended) A telescopic shaft for a vehicle steering according to claim 9, wherein said first axis-directional groove of said male shaft has ~~groove sided~~ side surfaces exhibiting a line symmetry with respect to a diametrical direction and a ~~groove-bottom~~ surface connecting said ~~groove-sided~~ side surfaces,

said first contact portion of said elastic member ~~is constructed of~~ includes transferring-member-side-sided contact portions each abutting on said first torque transferring member,

said second contact portion of said elastic member ~~is constructed of~~ includes groove-surface-side-sided contact portions each abutting on one of said groove ~~sided-side~~ surfaces,

said biasing portion connecting each said transferring-member-~~side-sided~~ contact portion to a corresponding one of said groove-surface-side-sided contact portions on ~~the a~~ side of an outer diameter, and biasing each said transferring-member-side contact portion and the corresponding groove-surface-side contact portion away two ~~contact portions in such a direction as to separate from~~ each other, and

said elastic member ~~further integrally~~ has a connecting portion connecting each said transferring-member-~~side-sided~~ contact portion to ~~said groove-surface-sided~~ a groove-bottom-surface side contact portion of said elastic member on ~~the a~~ side of an inner diameter.

11. (Currently Amended) A telescopic shaft for a vehicle steering according to claim 9, wherein said first torque transferring member is constructed of a plurality of spherical rolling members, and

said second torque transferring member is constructed of a needle roller.

12. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 2, wherein said biasing portion of said elastic member takes a bent shape bent between said transferring_member-side ~~sided~~ contact portion and said ~~groove surface-sided~~ shaft-side contact portion.

13. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 2, wherein said elastic member is constructed of an integral molding product made from thin plate spring steel.

14. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 2, wherein a surface hardness of said transferring_member-side ~~sided~~ contact portion is set higher than a surface hardness of a portion extending from said ~~groove surface-sided~~ shaft-side contact portion to said biasing portion.

15. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim ~~6~~2, wherein said biasing portion is formed with holes for reducing a biasing force.

16. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 2, wherein a plate thickness of said transferring_member_side-sided contact portion is set thicker than a plate thickness of a portion extending from said ~~groove surface sided~~ shaft-side contact portion to said biasing portion.

17. (Currently Amended) A telescopic shaft ~~for a vehicle steering~~ according to claim 2, wherein said transferring_member_side-sided contact portion ~~is~~ has a surface formed substantially in a circular arch cross-sectional shape.

18. (Currently Amended) A telescopic shaft for a vehicle steering according to claim 10, wherein said first torque transferring member is constructed of a plurality of spherical rolling members, and

said second torque transferring member is constructed of a needle roller.

19. (New) A telescopic shaft according to claim 1, further comprising a second torque transferring member interposed between another pair of axis-directional grooves formed respectively on the outer peripheral surface of said male shaft and the inner peripheral surface of said female shaft.

20. (New) A telescopic shaft according to claim 19, wherein a surface hardness of said transferring-member-side contact portion is set higher than a surface hardness of a portion extending from said shaft-side contact portion to said biasing portion.

21. (New) A telescopic shaft according to claim 19, wherein said biasing portion is formed with holes for reducing a biasing force.

22. (New) A telescopic shaft according to claim 19, wherein a plate thickness of said transferring-member-side contact portion is set thicker than a plate thickness of a portion extending from said shaft-side contact portion to said biasing portion.

23. (New) A telescopic shaft according to claim 19, wherein said transferring-member-side contact portion has a contact surface formed substantially in a circular arch cross-sectional shape.

24. (New) A telescopic shaft according to claim 19, wherein said telescopic shaft is used for vehicle steering.

25. (New) A telescopic shaft according to claim 2, wherein said telescopic shaft is used for vehicle steering.

26. (New) A telescopic shaft according to claim 3, wherein a surface hardness of said transferring-member-side contact portion is set higher than a surface hardness of a portion extending from said shaft-side contact portion to said biasing portion.

27. (New) A telescopic shaft according to claim 3, wherein said biasing portion is formed with holes for reducing a biasing force.

28. (New) A telescopic shaft according to claim 3, wherein a plate thickness of said transferring-member-side contact portion is set thicker than a plate thickness of a

portion extending from said shaft-side contact portion to said biasing portion.

29. (New) A telescopic shaft according to claim 3, wherein said transferring-member-side contact portion has a contact surface formed substantially in a circular arch cross-sectional shape.

30. (New) A telescopic shaft according to claim 3, wherein said telescopic shaft is used for vehicle steering.

31. (New) A telescopic shaft according to claim 1, wherein said telescopic shaft is used for vehicle steering.